ORIGINAL

BEFORE THE
POSTAL RATE COMMISSION
WASHINGTON, D.C. 20268–0001



MAILING ONLINE SERVICE

Docket No. MC98–1

RESPONSE OF UNITED STATES POSTAL SERVICE
WITNESS STIREWALT TO INTERROGATORY OF
THE OFFICE OF THE CONSUMER ADVOCATE
(OCA/USPS–T3—77)

The United States Postal Service hereby provides the response of witness Stirewalt to the following interrogatory of the Office of the Consumer Advocate: OCA/USPS–T3—77, filed on October 27, 1998. A motion for extension of time to file a response to this interrogatory was filed on November 6, 1998.

The interrogatory is stated verbatim and is followed by the response.

Respectfully submitted,

UNITED STATES POSTAL SERVICE

By its attorneys:

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November 10, 1998

RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS STIREWALT
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**OCA/USPS-T3-77.** Please refer to USPS-LR-1/MC98-1, Attachments 1 and 2.

a. Please provide, in hardcopy and in electronic format, a new version of USPS-LR-1/MC98-1, Attachments 1 and 2, that is up-to-date in that it reflects the current procedures for operating Mailing Online and corrects all known errors.

b. To the extent that the procedures for operating Mailing Online (e.g. Telecommunications Internet Connection, Processing Center - Application Server, Processing Center - Netpost Command Center Server, etc.) reflected in the hardcopy and electronic material provided in response to part (a) of this interrogatory are expected to change, please identify those procedures.

**RESPONSE:**

a. The current procedures for MOL are of relatively little use in updating Attachments 1 and 2 to reflect the experiment, because the experiment is expected to have different procedures. Nonetheless, while I have not completely compared my analysis with current procedures, I am attaching revised versions of Attachments 1 and 2 with corrections for known errors and modifications based on new information. An electronic spreadsheet copy, in the format of my response to OCA/USPS-T3-1, is being provided in USPS-LR-20/MC98-1. I also am attaching a description of the revisions, which increase my costs by $100,000 for "fixed", $70,000 for year 2000 and $80,000 for year 2001, with no changes in the other years. Moreover, I understand that an updated information systems cost analysis reflecting expected procedures during the Mailing Online experiment is being developed for presentation to the Commission.

b. Since the procedures for the Mailing Online experiment have not yet been determined, I cannot identify those procedures which are expected to change.

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## Summary of change to Attachments 1 and 2 in response to OCA/USPS-T3-77

| Interrogatory Reference | Change Requirement | Revision Made | Notes |
|---|---|---|---|
| OCA/USPS-T3-35(c) | Confirmed that in calculating "number of Bytes Per Business Day", the "*" following the first "COMP FACT" should be "+". A calculation for total number of bytes associated with mailing lists sent with non-mail-merge jobs was not included. In addition, BYTES/PAGE should be multiplied by the average number of pages per document. | Corrected the calculation of "number of Bytes Per Business Day in the "Telecommunications - FTP Servers" Section of Attachment 1 | Error Correction |
| OCA/USPS-T3-35(d) | Consulted with the Mailing Online software developers and learned that mail merge documents are not stored in Postscript format in the current Mailing Online system | Deleted the Attachment 1 Sections titled "PROCESSING CENTER - DATA STORAGE Postscript Files For Non-Mail Merge Jobs" and "PROCESSING CENTER - APPLICATION SERVER Backup Postscript Files For Non-Mail Merge Jobs (Night Only)", Modified Attachment 2 to eliminate two storage devices (PC 3), and modified Attachment 2 (PC 2) to reflect revised requirement | Modification based on new information |
| OCA/USPS-T3-41, OCA/USPS-T3-42 OCA/USPS-T3-44(d) | Confirmed that the "Number of Bytes Per Mailing Piece Transaction" should be 98,304 (30,720 * 3.2 Number of pages per Document), and that the figure, 1,516,231, "Bytes Processed Per Second During Peak Hours," should be 4,851,938 . | Modified Attachment 1 Section titled "PROCESSING CENTER - NETPOST COMMAND CENTER SERVER Source File Conversion of Mail Merge Transactions | Error Correction |
| OCA/USPS-T3-37 | Confirmed a "hot backup" server will be installed at each print site during the experimental service | Modified Attachment 2 Section titled "Printer Sites" to account for two FTP Servers per Print Site | Modification based on new information |
| OCA/USPS-T3-47(b) OCA/USPS-T3-50(b) | Confirmed that "Total Transactions Per Week" should be calculated based on a six day work week | Modified calculation of "Total Transaction Per Week" in Attachment 1 Sections "PROCESSING CENTER - DATA STORAGE" for Financial Transactions, PDF Files, and Mailing Lists. | Modification for consistency |
| OCA/USPS-T3-47(g) | Confirmed that the number 1460 in 1999 for "Transaction Archive Data Requirement (bytes) should be 365. Confirmed that for 2000, 2001, 2002, and 2003, this number should be 731, 1096, 1460, and 1460, respectively. | Modified Attachment 1 Section Titled "PROCESSING CENTER - DATA STORAGE Financial Transactions" | Modification as suggested in OCA/USPS-T3-47(g). However, additional factors will affect these numbers as indicated in my response to this interrogatory. |
| OCA/USPS-T3-48 | Confirmed that the figures 5,196,568.85, 15,589,706.54, and 20,786,275.38 should contain the multiplicative terms 3.2 pages per piece. | Modified Attachment 1 Section Titled "PROCESSING CENTER - DATA STORAGE PDF Files" | Error Correction |
| OCA/USPS-T3-51(a) | "Attachment E" should read "Attachment 3: Sources" | Modified Attachment 1 Section Titled "PROCESSING CENTER - APPLICATION SERVER | Error Correction |

| | | | |
|---|---|---|---|
| | | Backup Financial Transactions (Night Only)" | |
| OCA/USPS-T3-72(c) | The San Mateo processing center forwards all print jobs to the print site in PDF format. | Changed 30270 to 5020 in Attachment 1 Section titled "Telecommunications - FTP Servers" | Modification based on new information |
| OCA/USPS-T3-52(c) | Confirmed that the formula used to calculate the figure 320.78 should contain the multiplicative terms 3.2 pages per piece | Modified Attachment 1 Section Titled "PROCESSING CENTER - APPLICATION SERVER Backup PDF Files (Night Only)" | Error Correction |

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## Attachment 1, modified in response to OCA/USPS-T3-77

| CATEGORY / COMPONENT Description, Item # | YR 1999 Estimate | YR 2000 Estimate | YR 2001 Estimate | YR 2002 Estimate | YR 2003 Estimate | SOURCE |
|---|---|---|---|---|---|---|
| TELECOMMUNICATIONS INTERNET CONNECTION Customers Accessing Mailing Online | | | | | | |
| ACCESS - CUSTOMER/USPS | | | | | | |
| Total Number of Users | 5,981 | 10,439 | 16,275 | 22,815 | 26,650 | Library Reference USPS-LR-2/MC98-1, Section E - Survey Results - Table 19A (# businesses = # users assumed) |
| Average customer sessions per user per year | 12 | 12 | 12 | 12 | 12 | Frequency is unknown at this time; One per month is assumed based on expected mail content: invoices, announcements, statements, forms (Library Reference USPS-LR-2/MC98-1, Section C, Table 5) |
| Customer sessions per business day | 230.04 | 401.50 | 625.96 | 877.50 | 1025.00 | Calculated (sessions per year / 312 business days in a year, 6 day work week assumed) |
| Percentage usage during daily peak period | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | A Peak Period of Usage is required to plan for maximum capacity. % of users expected during such a period is unknown, 75% usage is therefore assumed. |
| Customer sessions during peak period | 172.53 | 301.13 | 469.47 | 658.13 | 768.75 | Calculated (Cust. Sessions Per day * Peak Percentage) |
| Average session duration (no. hours) | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | .5 hour estimated based on observation during testing (registration/logon on, file uploads=10 minutes, document review/job submit = 20 minutes) |
| Peak Usage Period Hours | 4 | 4 | 4 | 4 | 4 | No peak usage period has been observed during the operation test, but must be considered to plan for maximum capacity: 1PM-5PM EST is assumed here |
| **#1A Avg. No. Concurrent Sessions During Peak Hours** | **21.57** | **37.64** | **58.68** | **82.27** | **96.09** | **Calculated (Customer sessions during peak period/peak period/avg. session duration)** |
| Access Ports Required During Peak Hours | 21.57 | 37.64 | 58.68 | 82.27 | 96.09 | One for each session |
| THROUGHPUT - CUSTOMER/USPS | | | | | | |
| Incoming Documents/Mailing Lists Per Second During Peak Period | 0.01 | 0.02 | 0.03 | 0.05 | 0.05 | Calculated (Cust sessions during peak period / ( no. hours * 3600 seconds per hr) |
| Number of pages per Document | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 | 68% 1-2 pages, 11% 3-4 pages, 9% 5-6 pages, 3% 7-10 pages,2% 11-15 pages, 7% 15+ pages (Library Reference USPS-LR-2/MC98-1, Section E, Table 12) |
| Number of Bytes Per Page Word Processing/DeskTop Publishing | 5020 | 5020 | 5020 | 5020 | 5020 | The size in bytes of an electronic "page" can vary widely, depending of volume of text and presence of graphics. A Microsoft Word file with several paragraphs plain text can require up to 10K bytes. 5K is assumed here. |
| Number of Addresses Per Mailing List | 4,120 | 4,119 | 4,119 | 4,119 | 4,119 | Calculated (annual mail volume estimate /(total customer estimate/avg mailings per customer per annum) |
| Number of bytes per address | 200 | 200 | 200 | 200 | 200 | Although address fields are defined, number of characters, other characteristics of address affect the size, 200 bytes is assumed here. |
| Average Bytes Per Incoming Customer Transmission | 839964.69 | 839921.65 | 839956.47 | 839956.18 | 839956.43 | Calculated (Average no. of pages * no. bytes per page) |
| **#1 Incoming bytes Per Second During Peak Hours** | **10063.76** | **17563.99** | **27384.40** | **38388.62** | **44841.42** | Calculated (Average Bytes Per Transmission * Incoming documents per second) |
| PROCESSING CENTER - APPLICATION SERVER Source File to PDF Conversion | | | | | | |
| **#2 Bytes Per Second During Peak Hours** | **10063.76** | **17563.99** | **27384.40** | **38388.62** | **44841.42** | Calculated (Average Bytes Per Transmission * Incoming documents per second) |
| PROCESSING CENTER - NETPOST COMMAND CENTER SERVER Source File Conversion of Mail Merge Transactions | | | | | | |
| Incoming bytes Per Second During Peak Hours | 10063.76 | 17563.99 | 27384.40 | 38388.62 | 44841.42 | Calculated (Average Bytes Per Transmission * Incoming documents per second) |

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## Attachment 1, modified in response to OCA/USPS-T3-77 (continued)

| CATEGORY / COMPONENT Description, Item # | YR 1999 Estimate | YR 2000 Estimate | YR 2001 Estimate | YR 2002 Estimate | YR 2003 Estimate | SOURCE |
|---|---|---|---|---|---|---|
| Average mailing pieces per document | 4,120 | 4,119 | 4,119 | 4,119 | 4,119 | Calculated (total mail volume estimate / total customer estimate) |
| Number of Bytes Per Page in Postscript Format | 30720 | 30720 | 30720 | 30720 | 30720 | Actual Number is unknown; estimate based on observation of file sizes generated during Mailing Online software testing activity |
| Mail Merge Transactions Per Second During Peak Hours | 49 | 86 | 134 | 188 | 220 | Calculated (average pieces per document * incoming documents per second) |
| **#3 Bytes Processed Per Second During Peak Hours** | **4,851,938** | **8,467,938** | **13,202,560** | **18,507,914** | **21,618,937** | Calculated (Mail Merge Transactions Per Second * Number of Bytes per piece) |
| TELECOMMUNICATIONS - FTP SERVERS Data Sent from USPS to Print Sites | | | | | | |
| Number of Printers | 10 | 17 | 25 | 25 | 25 | PRICE WATERHOUSE LIBRARY REFERENCE Exhibit A, Table 9, Item 20, page 15 |
| Number of Mail Pieces Per Year | 295,665,000 | 516,015,000 | 804,531,000 | 1,127,826,000 | 1,317,404,000 | Library Reference USPS-LR-2/MC98-1, Section E, Table 12 |
| Number of Mail Pieces Per Business Day | 947,644 | 1,653,894 | 2,578,625 | 3,614,827 | 4,222,449 | Calculated (pieces per year / 312 business days in a year, 6 day work week assumed as per marketing plan) |
| Average Bytes Per Page in Postscript format | 5020 | 5020 | 5020 | 5020 | 5020 | Estimate based on observation of file sizes generated by the Mailing Online software during the pilot. |
| Percentage mail merge jobs | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | Both mail-merge and no mail-merge are available with Mailing Online. There is no data to indicate what percentage of customer orders require mail merge and since file size varies greatly between the two options, they both must be considered |
| Percentage non mail merge jobs | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | in this analysis. A 50%-50% split is assumed here. |
| Compression factor using ZIP | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | Files are compressed using a data compression utility. .15 is an estimate of the average compression factor using any of several data compression utilities used by the Postal Service and industry. |
| Number of Bytes Per Business Day | 1142060712 | 1993157286 | 3107543350 | 4356262481 | 5088502927 | Calculated (pieces/pages per day * bytes per postscript page * mail merge factor * compression factor)*(documents per day * bytes per postscript page * non-mail merge factor)*(documents per day * bytes per mailing list* non-mail merge factor) |
| Percentage usage during daily peak period | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | A Peak Period of Usage is required to plan for maximum capacity. % of users expected during such a period is unknown, 75% usage is therefore assumed. |
| Number of bytes during daily peak period | 856545534.1 | 1494867964 | 2330657513 | 3267196861 | 3816377195 | Calculated (Total bytes per day * peak usage percentage) |
| Peak Usage Period Hours | 4 | 4 | 4 | 4 | 4 | 1PM-5PM EST assumed |
| Peak Usage Period Seconds | 14400 | 14400 | 14400 | 14400 | 14400 | Calculated (hours / 3600) |
| **#4 Peak Usage Throughput Per Second to each Print Site** | **5948.232876** | **6106.486782** | **6474.048647** | **9075.546835** | **10601.04777** | Calculated (bytes during peak period / total seconds in period/ no. of printers) |
| PROCESSING CENTER - DATA STORAGE Financial Transactions | | | | | | |
| Total Transactions Per Day | 230.04 | 401.50 | 625.96 | 877.50 | 1025.00 | One Payment Per Session |
| Total Transactions Per Week | 1,380 | 2,409 | 3,756 | 5,265 | 6,150 | Calculated (Financial trans. per day * 5) weekend amount minimal |
| Total Transactions Per Year | 71,772 | 125,268 | 195,300 | 273,780 | 319,800 | Calculated (Financial trans. per week * 52) |
| **#4A Bytes Per Transaction** | **221** | **221** | **221** | **221** | **221** | **Calculated. See Attachment 5: Sources for Details** |
| Transaction On-line Storage Duration Requirement (days) | 1 | 1 | 1 | 1 | 1 | Online retrieval of payment transaction data would be required for settlement purposes only. Financial transactions are settled daily. |
| Transaction Backup Duration Requirement (days) | 180 | 180 | 180 | 180 | 180 | Per Postal Service Finance and agreement with financial institutions. |
| Transaction Archive Duration Requirement (days) | 365 | 731 | 1096 | 1460 | 1460 | Duration required by Visa and MasterCard |
| Compression factor using ZIP | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | Files are compressed using a data compression utility. .15 is an estimate of the average compression factor using any of several data compression utilities used by the Postal Service and industry. |
| **#5 Transaction On-line Data Requirement (bytes)** | **7625.78** | **13309.73** | **20750.63** | **29089.13** | **33978.75** | Calculated (bytes per transaction * trans per day * req no. of days * comp. factor) |
| **#6 Transaction Backup Data Requirement (bytes)** | **1372639.50** | **2395750.50** | **3735112.50** | **5236042.50** | **6116175.00** | Calculated (bytes per transaction * trans per day * req no. of days * comp. factor) |

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## Attachment 1, modified in response to OCA/USPS-T3-77 (continued)

| CATEGORY / COMPONENT Description, Item # | YR 1999 Estimate | YR 2000 Estimate | YR 2001 Estimate | YR 2002 Estimate | YR 2003 Estimate | SOURCE |
|---|---|---|---|---|---|---|
| **#7 Transaction Archive Data Requirement (bytes)** | **2783407.88** | **9729408.98** | **22742685.00** | **42470122.50** | **49608975.00** | Calculated (bytes per transaction * trans per day * req no. of days * comp. factor) |
| PROCESSING CENTER - DATA STORAGE PDF Files | | | | | | |
| Total Documents Per Day | 230.04 | 401.50 | 625.96 | 877.50 | 1025.00 | Calculated (transaction per year * average pieces per transaction) |
| Total Documents Per Week | 1,380 | 2,409 | 3,756 | 5,265 | 6,150 | Calculated (Trans. per day * 5) weekend amount minimal |
| Total Documents Per Year | 71,772 | 125,268 | 195,300 | 273,780 | 319,800 | Calculated (Trans. per week * 52) |
| Average Bytes Per Page in PDF format | 5,020 | 5,020 | 5,020 | 5,020 | 5,020 | Actual size is unknown at this time; Estimate based on observation of files sizes created during the Mailing Online software testing |
| PDF File On-line Storage Duration Requirement (days) | 30 | 30 | 30 | 30 | 30 | Mailing Online software design leaves document in Win95 Directory |
| PDF File Backup Duration Requirement (days) | 90 | 90 | 90 | 90 | 90 | No backup duration has been agreed upon. 90 days is assumed here. |
| PDF File Archive Duration Requirement (days) | 120 | 120 | 120 | 120 | 120 | No archive duration has been agreed upon. 120 days is assumed here. |
| Compression factor using ZIP | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | Assumes all backup and archives files will be compressed (.15 compression factor assumed) |
| **#8 PDF File On-line Data Requirement (bytes)** | **16629020.31** | **29023632.00** | **45249507.69** | **63432720.00** | **74095200.00** | Calculated (bytes per mailing *mailings per day * req. no. of days * mail merge % * comp factor) |
| **#9 PDF File Backup Data Requirement (bytes)** | **49887060.92** | **87070896.00** | **135748523.08** | **190298160.00** | **222285600.00** | Calculated (bytes per mailing *mailings per day * req. no. of days * mail merge % * comp factor) |
| **#10 PDF File Archive Data Requirement (bytes)** | **66516081.23** | **116094528.00** | **180998030.77** | **253730880.00** | **296380800.00** | Calculated (bytes per mailing *mailings per day * req. no. of days * mail merge % * comp factor) |
| PROCESSING CENTER - DATA STORAGE Mail Lists | | | | | | |
| Total Transactions Per Day | 230.04 | 401.50 | 625.96 | 877.50 | 1025.00 | One Mailing List Per Session |
| Total Transactions Per Week | 1,380 | 2,409 | 3,756 | 5,265 | 6,150 | Calculated (Mailing lists per day * 5) weekend amount minimal |
| Total Transactions Per Year | 71,772 | 125,268 | 195,300 | 273,780 | 319,800 | Calculated (Mailing lists per week * 52) |
| Number of Addresses Per Mailing List | 4,120 | 4,119 | 4,119 | 4,119 | 4,119 | Calculated = avg. number of pieces per Mailing On-line mailing |
| Number of bytes per address | 200 | 200 | 200 | 200 | 200 | Although address fields are defined, number of characters, other characteristics of address affect the size, 200 bytes is assumed here. |
| Number of bytes Per mailing list | 823,901 | 823,858 | 823,892 | 823,892 | 823,892 | Calculated = avg. number of bytes per address X avg. no. of addresses |
| Transaction On-line Storage Duration Requirement (days) | 30 | 30 | 30 | 30 | 30 | No online storage requirement has yet been identified. It is assumed here for purposes of determining maximum possible storage requirement. |
| Transaction Backup Duration Requirement (days) | 90 | 90 | 90 | 90 | 90 | No backup storage requirement has yet been identified. It is assumed here for purposes of determining maximum possible storage requirement. |
| Transaction Archive Duration Requirement (days) | 120 | 120 | 120 | 120 | 120 | No archive storage requirement has yet been identified. It is assumed here for purposes of determining maximum possible storage requirement. |
| Compression factor using ZIP | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | Assumes all backup and archives files will be compressed (.15 compression factor assumed) |
| **#14 Transaction On-line Data Requirement (bytes)** | **852879807.7** | **1488504808** | **2320762500** | **3253344231** | **3800203846** | Calculated (bytes per transaction * trans per day * req no. of days * comp. factor) |
| **#15 Transaction Backup Data Requirement (bytes)** | **2558639423** | **4465514423** | **6962287500** | **9760032692** | **11400611538** | Calculated (bytes per transaction * trans per day * req no. of days * comp. factor) |
| **#16 Transaction Archive Data Requirement (bytes)** | **3411519231** | **5954019231** | **9283050000** | **13013376923** | **15200815385** | Calculated (bytes per transaction * trans per day * req no. of days * comp. factor) |

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## Attachment 1, modified in response to OCA/USPS-T3-77 (continued)

| CATEGORY / COMPONENT Description, Item # | YR 1999 Estimate | YR 2000 Estimate | YR 2001 Estimate | YR 2002 Estimate | YR 2003 Estimate | SOURCE |
|---|---|---|---|---|---|---|
| PROCESSING CENTER - APPLICATION SERVER Backup Financial Transactions (Night Only) | | | | | | |
| Total Transactions Per Day | 230.04 | 401.50 | 625.96 | 877.50 | 1025.00 | One Payment Per Session |
| Bytes Per Transaction | 221 | 221 | 221 | 221 | 221 | Refer to Attachment 3 for details |
| Backup Time (Minutes) | 30 | 30 | 30 | 30 | 30 | Four hour estimated nightly maintenance period / 8 |
| **#17 Bytes Per Second** | **28.24** | **49.30** | **76.85** | **107.74** | **125.85** | **Number of trans. per day * no. of bytes * total secs** |
| PROCESSING CENTER - APPLICATION SERVER Backup PDF Files (Night Only) | | | | | | |
| Total Transactions Per Day | 230.04 | 401.50 | 625.96 | 877.50 | 1025.00 | Calculated (transaction per year * average pieces per transaction) |
| Average Bytes Per Page in PDF format | 5,020 | 5,020 | 5,020 | 5,020 | 5,020 | The size in bytes of an electronic "page" can vary widely, depending of volume of text and presence of graphics. A Microsoft Word file with several paragraphs plain text can require up to 10K bytes. 5K is assumed here. |
| Backup Time (Minutes) | 60 | 60 | 60 | 60 | 60 | Four hour estimated nightly maintenance period / 4 |
| **#18 Bytes Per Second** | **1026.48** | **1791.58** | **2793.18** | **3915.60** | **4573.78** | **Number of trans. per day * no. of bytes per document* total secs** |
| PROCESSING CENTER - APPLICATION SERVER Backup Mail Lists | | | | | | |
| Total Transactions Per Day | 230.04 | 401.50 | 625.96 | 877.50 | 1025.00 | |
| Number of bytes Per mailing list | 823,901 | 823,858 | 823,892 | 823,892 | 823,892 | Calculated = avg. number of bytes per address X avg. no. of addresses |
| Backup Time (Minutes) | 120 | 120 | 120 | 120 | 120 | Two hours estimate nightly maintenance period / 2 |
| **#20 Bytes Per Second** | **26323.45** | **45941.51** | **71628.47** | **100411.86** | **117290.24** | **Number of trans. per day * no. of bytes * total secs** |
| TECHNICAL HELP DESK RESOURCE YEARS Help Desk Volumes/Durations | | | | | | |
| Total First Time Call Hours | 2,991 | 3,344 | 4,377 | 4,905 | 2,876 | No. of new customers (increase over previous year X 1.5 to account for customer turn over) X .5 hour estimate for initial call X 1 initial call per year - average call times estimated from experience during operational test |
| Total On-going calls hours | 1,794 | 3,132 | 4,883 | 6,845 | 7,995 | Total no. of customers X .1 hour estimate for on-going calls X 3 calls average per year - average call times estimated from experience during operational test |
| Total call hours | 4,785 | 6,475 | 9,260 | 11,750 | 10,871 | Total initial call hours + total on-going call hours |
| Total Help Desk Resource Years | 2.66 | 3.60 | 5.14 | 6.53 | 6.04 | Total hours / 1800 average workhours per resource year |
| Percentage of customer calls requiring technical help | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | Experience during the pilot indicates that this percentage is low, but 50% assumed for capacity planning. |
| **#21 Technical Help Desk Call Hours** | **2392** | **3238** | **4630** | **5875** | **5436** | **Total On-Going Call hours X % of calls req. technical help** |
| **#22 Technical Help Desk Resource Years** | **1.33** | **1.80** | **2.57** | **3.26** | **3.02** | **Total Help Desk hours X % of calls req. technical help** |

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## Attachment 2, modified in response to OCA/USPS-T3-77

| CATEGORY | FIXED COSTS | | YR 1999 | | | ANNUAL COSTS | | | YR 1999 | | YR 2000 | | YR 2001 | | YR 2002 | | YR 2003 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Component (Component ID) | Unit | Unit Cost | No. of Units | Amount (Unit Cost X No. of Units) | Component (Component ID) | Unit | Unit Cost | No. of Units | Amount | No. of Units | Amount (Unit Cost X No. of Units) | No. of Units | Amount (Unit Cost X No. of Units) | No. of Units | Amount (Unit Cost X No. of Units) | No. of Units | Amount (Unit Cost X No. of Units) |
| Technical Help Desk | | | | | | Technical Help Desk Manager (HD 13) | Resource Yr | 100,000 | 1 | 100,000 | 1 | 100,000 | 1 | 100,000 | 1 | 100,000 | 1 | 100,000 |
| (Refer Attachment 3, Page 13, for Capacity Analysis) | | | | | | Technical Help Desk Staff (HD 14) | Resource Yr | 60,000 | 3 | 180,000 | 3 | 180,000 | 5 | 300,000 | 5 | 300,000 | 5 | 300,000 |
| | Workstations (HD 1) | Digital PC5100 w/Lexmark Printer and 3 Yr Wrnty | 2000 | 3 | 6,000 | Workstations (HD 15) | Digital PC5100 w/Lexmark Printer and 3 Yr Wrnty | 2000 | | 0 | | 0 | 2 | 4,000 | 0 | 0 | | 0 |
| | Color Printer (HD 2) | HP Color Laser 5 | 4050 | 1 | 4,050 | Color Printer (HD 16) | HP Color Laser 5 | 4050 | | 0 | | 0 | 1 | 4,050 | | 0 | | 0 |
| | Print Driver Software (HD 3) | Adobe Postscript Level 2 SIMM | 498 | 1 | 498 | Print Driver Software (HD 17) | Adobe Postscript Level 2 SIMM | 498 | | 0 | | 0 | 1 | 498 | | 0 | | 0 |
| | Printer Warranty (HD 4) | Three Year Warranty | 3645 | 1 | 3,645 | Printer Warranty (HD 18) | | 3645 | | 0 | | 0 | 1 | 3,645 | | 0 | | 0 |
| | Training for New Hires/ Replacements (HD 5) | 1 week course in MOL | 1000 | 3 | 3,000 | Training for New Hires/ Replacements (HD 19) | 1 week course in MOL | 1000 | 2 | 2,000 | 2 | 2,000 | 2 | 2,000 | 3 | 3,000 | 3 | 3,000 |
| | Word Processing/ Desk Top Publishing Software for Help Desk staff (HD 6) | Ventura Publishing 7.0 | 682 | 3 | 2,046 | Word Processing/ Desk Top Publishing Software for Help Desk staff (HD 20) | Ventura Publishing 7.0 | 682 | 0 | 0 | 0 | 0 | 2 | 1,364 | 0 | 0 | 0 | 0 |
| | (HD 7) | Quark Express | 732 | 3 | 2,196 | (HD 21) | Quark Express | 732 | 0 | 0 | 0 | 0 | 2 | 1,464 | 0 | 0 | 0 | 0 |
| | (HD 8) | Word Perfect Suite 8.0 | 346 | 3 | 1,038 | (HD 22) | Word Perfect Suite 8.0 | 346 | 0 | 0 | 0 | 0 | 2 | 692 | 0 | 0 | 0 | 0 |
| | (HD 9) | Adobe Acrobat 3.0 | 212 | 3 | 636 | (HD 23) | Adobe Acrobat 3.0 | 212 | 0 | 0 | 2 | 0 | 2 | 424 | 0 | 0 | 0 | 0 |
| | (HD 10) | Access 97 | 361 | 3 | 1,083 | (HD 24) | Access 97 | 361 | 0 | 0 | 0 | 0 | 2 | 722 | 0 | 0 | 0 | 0 |
| | (HD 11) | Plus! Version 1.0 | 58 | 3 | 174 | (HD 25) | Plus! Version 1.0 | 58 | 0 | 0 | 0 | 0 | 2 | 116 | 0 | 0 | 0 | 0 |

RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS STIREWALT
TO INTERROGATORY OF THE OFFICE OF THE CONSUMER ADVOCATE

## Attachment 2, modified in response to OCA/USPS-T3-77

| CATEGORY | FIXED COSTS | | YR 1999 | | | ANNUAL COSTS | | | YR 1999 | | YR 2000 | | YR 2001 | | YR 2002 | | YR 2003 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Component (Component ID) | Unit | Unit Cost | No. of Units | Amount (Unit Cost X No. of Units) | Component (Component ID) | Unit | Unit Cost | No. of Units | Amount | No. of Units | Amount (Unit Cost X No. of Units) | No. of Units | Amount (Unit Cost X No. of Units) | No. of Units | Amount (Unit Cost X No. of Units) | No. of Units | Amount (Unit Cost X No. of Units) |
| | (HD 12) | Microsoft Office | 400 | 3 | 1,200 | (HD 26) | Microsoft Office | 400 | 0 | 0 | 0 | 0 | 2 | 800 | 0 | 0 | 0 | 0 |
| TOTAL TECHNICAL HELP DESK | | | | | 25,566 | | | | | 282,000 | | 282,000 | | 419,775 | | 403,000 | | 403,000 |
| Management/ Administration | Workstation (MA 1) | Digital PC5100 w/Lexmark Printer and 3 Yr Wrnty | 2000 | 1 | 2,000 | Program Manager (Primary and Secondary Processing) (MA 2) | Resource Yr | 120,000 | 1 | 120,000 | 1 | 120,000 | 1 | 120,000 | 1 | 120,000 | 1 | 120,000 |
| Total Management Administration | | | | | 2,000 | | | | | 120,000 | | 120,000 | | 120,000 | | 120,000 | | 120,000 |
| Processing Center | | | | | | System Manager (Primary and Secondary Processing) (PC 27) | Resource Yr | 120,000 | 1 | 120,000 | 1 | 120,000 | 1 | 120,000 | 1 | 120,000 | 1 | 120,000 |
| (Refer Attachment 3, Pages 9-13, for Capacity Analysis) | | | | | | Data Base Administrator (Primary and Secondary Processing) (PC 28) | Resource Yr | 100,000 | 1.5 | 150,000 | 1.5 | 150,000 | 1.5 | 150,000 | 1.5 | 150,000 | 1.5 | 150,000 |
| | Data Storage (On-Line) (PC 1) | CD ROM 7 Bay Tower w/4 Toshiba 12X Drives | 1951 | 6 | 11,706 | Systems Administration (Primary and Secondary Processing) (PC 29) | Resource Yr | 100000 | 1.5 | 150,000 | 1.5 | 150,000 | 1.5 | 150,000 | 1.5 | 150,000 | 1.5 | 150,000 |
| | Data Storage (Backup) (PC 2) | FTK 9710 | 50000 | 2 | 100,000 | Application Software Support (Primary and Secondary Processing) (PC 30) | Resource Yr | 100000 | 2 | 200,000 | 2 | 200,000 | 2 | 200,000 | 2 | 200,000 | 2 | 200,000 |
| | Data Storage (Archive) (PC 3) | FTK 9710 | 50000 | 2 | 100,000 | | | | | | | | | | | | | |

## Attachment 2, modified in response to OCA/USPS-T3-77 (continued)

| CATEGORY | FIXED COSTS | | YR 1999 | | | ANNUAL COSTS | | | YR 1999 | | YR 2000 | | YR 2001 | | YR 2002 | | YR 2003 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Component (Component ID) | Unit | Unit Cost | No. of Units | Amount (Unit Cost X No. of Units) | Component (Component ID) | Unit | Unit Cost | No. of Units | Amount | No. of Units | Amount (Unit Cost X No. of Units) | No. of Units | Amount (Unit Cost X No. of Units) | No. of Units | Amount (Unit Cost X No. of Units) | No. of Units | Amount (Unit Cost X No. of Units) |
| | Application Servers (Primary and Secondary Processing) (PC 4) | Unix Sun Ultra Enterprise 3000 | 110,000 | 2 | 220,000 | Application Servers (Prod. Backup) (PC 31) | Unix Sun Ultra/ Additional Processors and Clusters | 50000 | 0 | 0 | 0 | 0 | 2 | 100,000 | 2 | 100,000 | 2 | 100,000 |
| | (PC 5) | DASD Array 80GB | 44,500 | 4 | 178,000 | | | | | | | | | | | | | |
| | (PC 6) | Enhance Service 7X24, four hour response from vendor | 3,000 | 2 | 6,000 | | | | | | | | | | | | | |
| | FTP Servers (Primary and Secondary Processing) (PC 7) | Digital Prioris ZX6200 One Processor (Windows NT) | 7,125 | 2 | 14,250 | | | | | | | | | | | | | |
| | (PC 8) | Enhance Service 7X24, four hour response from vendor | 2,850 | 2 | 5,700 | | | | | | | | | | | | | |
| | Application Servers (Testing and Staging) (PC 9) | Unix | 20,000 | 1 | 20,000 | | | | | | | | | | | | | |
| | (PC 10) | Enhance Service 7X24, four hour response from vendor | 3,000 | 1 | 3,000 | | | | | | | | | | | | | |
| | NetPost Cmd Ctr Servers (Testing and Staging) (PC 11) | Unix | 20,000 | 1 | 20,000 | | | | | | | | | | | | | |

## Attachment 2, modified in response to OCA/USPS-T3-77 (continued)

| CATEGORY | FIXED COSTS | | YR 1999 | | | ANNUAL COSTS | | | YR 1999 | | YR 2000 | | YR 2001 | | YR 2002 | | YR 2003 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Component (Component ID) | Unit | Unit Cost | No. of Units | Amount (Unit Cost X No. of Units) | Component (Component ID) | Unit | Unit Cost | No. of Units | Amount | No. of Units | Amount (Unit Cost X No. of Units) | No. of Units | Amount (Unit Cost X No. of Units) | No. of Units | Amount (Unit Cost X No. of Units) | No. of Units | Amount (Unit Cost X No. of Units) |
| | (PC 12) | Enhance Service 7X24, four hour response from vendor | 3,000 | 1 | 3,000 | | | | | | | | | | | | | |
| | FTP Servers (Testing and Staging) (PC 13) | Digital Prioris ZX6200 One Processor (Windows NT) | 7,125 | 1 | 7,125 | | | | | | | | | | | | | |
| | (PC 14) | Enhance Service 7X24, four hour response from vendor | 2,850 | 1 | 2,850 | | | | | | | | | | | | | |
| | Payment Servers (Testing and Staging) (PC 15) | Digital Prioris ZX6200 One Processor (Windows NT) | 7,125 | 1 | 7,125 | | | | | | | | | | | | | |
| | (PC 16) | Enhance Service 7X24, four hour response from vendor | 2,850 | 1 | 2,850 | | | | | | | | | | | | | |
| | Payment Processing Software (Secondary and Testing/Staging Servers) (PC 17) | Tellan PC*Author-ized Hub (Two Pack) | 469 | 1 | 469 | | | | | | | | | | | | | |

RESPONSE OF UNITED STATES POSTAL SERVICE WITNESS STIREWALT
TO INTERROGATORY OF THE OFFICE OF THE CONSUMER ADVOCATE

**Attachment 2, modified in response to OCA/USPS-T3-77 (continued)**

| CATEGORY | FIXED COSTS | | YR 1999 | | | ANNUAL COSTS | | | YR 1999 | | YR 2000 | | YR 2001 | | YR 2002 | | YR 2003 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Component (Component ID) | Unit | Unit Cost | No. of Units | Amount (Unit Cost X No. of Units) | Component (Component ID) | Unit | Unit Cost | No. of Units | Amount | No. of Units | Amount (Unit Cost X No. of Units) | No. of Units | Amount (Unit Cost X No. of Units) | No. of Units | Amount (Unit Cost X No. of Units) | No. of Units | Amount (Unit Cost X No. of Units) |
| | Address List Management Software: Primary, Secondary, *Testing/Staging* (PC 18) | PostalSoft | 65,528 | 3 | 196,584 | Address List Management Software Annual Usage Fees (PC 32) | PostalSoft Annual Fee: Production | 10010 | 1 | 10,010 | 1 | 10,010 | 1 | 10,010 | 1 | 10,010 | 1 | 10,010 |
| | Encryption Software: Primary, Secondary, Testing/Staging (PC 19) | PGP Server License | 2,400 | 3 | 7,200 | Encryption Software: Primary, Secondary, Testing/Staging (PC 33) | PGP Annual Maintenanc e | 240 | 3 | 720 | 3 | 720 | 3 | 720 | 3 | 720 | 3 | 720 |
| | Word Processing/ Desk Top Publishing Software (PC 20) | Ventura Publishing 7.0 | 682 | 1 | 682 | Address List Management Software Annual Usage Fees (PC 34) | PostalSoft Annual Fee: Secondary, Testing /Staging | 2000 | 2 | 4,000 | 2 | 4,000 | 2 | 4,000 | 2 | 4,000 | 2 | 4,000 |
| | (PC 21) | Quark Express | 732 | 1 | 732 | | | | | | | | | | | | | |
| | (PC 22) | Word Perfect Suite 8.0 | 346 | 1 | 346 | | | | | | | | | | | | | |
| | (PC 23) | Adobe Acrobat 3.0 | 212 | 1 | 212 | | | | | | | | | | | | | |
| | (PC 24) | Access 97 | 361 | 1 | 361 | | | | | | | | | | | | | |
| | (PC 25) | Plus! Version 1.0 | 58 | 1 | 58 | | | | | | | | | | | | | |
| | (PC 26) | Visual Studio 97 | 1,571 | 1 | 1,571 | | | | | | | | | | | | | |
| TOTAL PROCESSING CENTER | | | | | 909,821 | | | | | 634,730 | | 634,730 | | 734,730 | | 734,730 | | 734,730 |

## Attachment 2, modified in response to OCA/USPS-T3-77 (continued)

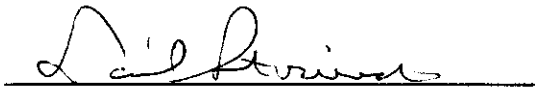
| CATEGORY | FIXED COSTS | | YR 1999 | | | ANNUAL COSTS | | | YR 1999 | | | YR 2000 | | YR 2001 | | YR 2002 | | YR 2003 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Component* (Component ID) | *Unit* | *Unit Cost* | *No. of Units* | *Amount (Unit Cost X No. of Units)* | *Component* (Component ID) | *Unit* | *Unit Cost* | *No. of Units* | *Amount* | *No. of Units* | *Amount (Unit Cost X No. of Units)* | *No. of Units* | *Amount (Unit Cost X No. of Units)* | *No. of Units* | *Amount (Unit Cost X No. of Units)* | *No. of Units* | *Amount (Unit Cost X No. of Units)* |
| Telecommunication | Setup Network Line to Initial Print Sites (TEL 1) | Dedicated Network Line (T1) | 3500 | 10 | 35,000 | Setup Network Line to Addt'l Printers (TEL 4) | Dedicated Network Line (T1) | 3500 | 0 | 0 | 7 | 24,500 | 8 | 28,000 | 0 | 0 | 0 | 0 |
| (Refer Attachment 3, Pages 8-9, for Capacity Analysis) | Set Up Internet Connection (TEL 2) | Dedicated Network Line (T1) | 3500 | 1 | 3,500 | Annual Charge Network Line from USPS to all Print Sites (TEL 5) | T1 Annual Charge (Monthly X 12) | 42000 | 10 | 420,000 | 17 | 714,000 | 25 | 1,050,000 | 25 | 1,050,000 | 25 | 1,050,000 |
| | Setup Network Line to FDMS (TEL 3) | Dedicated Network Line (T1) | 3500 | 1 | 3,500 | Annual Charge Network Line from USPS to FDMS (TEL 6) | T1 Annual Charge (Monthly X 12) | 42000 | 1 | 42,000 | 1 | 42,000 | 1 | 42,000 | 1 | 42,000 | 1 | 42,000 |
| | | | | | | Help Desk 1-800 line (TEL 7) | Charge per hour use | 3.3 | 2392 | 7,894 | 3238 | 10,685 | 4630 | 15,279 | 5875 | 19,388 | 5436 | 17,939 |
| TOTAL TELE-COMMUNICATIONS | | | | | 42,000 | | | | | 469,894 | | 791,185 | | 1,135,279 | | 1,111,388 | | 1,109,939 |
| Printer Sites | Initial Print Sites - FTP Servers (PR 1) | Digital Prioris ZX6200 Single One Processor (Windows NT) | 10,000 | 20 | 200,000 | Addt'l Sites - FTP Servers (PR 5) | Digital Prioris ZX6200 Single One Processor (Windows NT) | 10,000 | 0 | 0 | 14 | 140,000 | 16 | 160,000 | 0 | 0 | 0 | 0 |
| (Refer Attachment 3, Pages 9, for Capacity Analysis) | Initial Print Sites - Router (PR 2) | 1 Router | 1500 | 10 | 15,000 | Addt'l Sites - Routers (PR 6) | Estimate | 1500 | 0 | 0 | 7 | 10,500 | 8 | 12,000 | 0 | 0 | 0 | 0 |
| | Install Equipment at Initial Print Sites - Labor (PR 3) | Resource Hrs (6) @ $65.00 per hour | 40 | 10 | 26,000 | Install Equipment at addt'l Print Sites - Labor (PR 7) | Resource Hrs @ $65.00 per hour | 40 | 0 | 0 | 7 | 18,200 | 8 | 20,800 | 0 | 0 | 0 | 0 |
| | Install Equipment at Initial Print Sites - Travel (PR 4) | Cost Per Trip: Airfare, Hotel, Local Transport, Per Diem | 2500 | 10 | 25,000 | Install Equipment at addt'l Print Sites - Travel (PR 8) | Cost Per Trip: Airfare, Hotel, Local Transport, Per Diem | 2500 | 0 | 0 | 7 | 17,500 | 8 | 20,000 | 0 | 0 | 0 | 0 |

**Attachment 2, modified in response to OCA/USPS-T3-77 (continued)**

| CATEGORY | FIXED COSTS | | YR 1999 | | | ANNUAL COSTS | | | YR 1999 | | YR 2000 | | YR 2001 | | YR 2002 | | YR 2003 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Component (Component ID) | Unit | Unit Cost | No. of Units | Amount (Unit Cost X No. of Units) | Component (Component ID) | Unit | Unit Cost | No. of Units | Amount | No. of Units | Amount (Unit Cost X No. of Units) | No. of Units | Amount (Unit Cost X No. of Units) | No. of Units | Amount (Unit Cost X No. of Units) | No. of Units | Amount (Unit Cost X No. of Units) |
| | | | | | | USPS Equipment Maintenance at all Print Sites (PR 9) | 100 Resource hrs/yr @ $65.00 per hour | 80 | 10 | 52,000 | 17 | 88,400 | 25 | 130,000 | 25 | 130,000 | 25 | 130,000 |
| Total Print Sites | | | | | 266,000 | | | | | 52,000 | | 274,600 | | 342,800 | | 130,000 | | 130,000 |
| | | | | | | | | | | | | | | | | | | |
| GRAND TOTALS | | | | | 1,245,387 | | | | | 1,558,624 | | 2,102,515 | | 2,752,584 | | 2,499,118 | | 2,497,669 |

## DECLARATION

I, Daniel Stirewalt, declare under penalty of perjury that the foregoing answers are true and correct, to the best of my knowledge, information, and belief.



Dated: 11/10/98

## CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon all participants of record in this proceeding in accordance with section 12 of the Rules of Practice.

David H. Rubin

475 L'Enfant Plaza West, S.W.
Washington, D.C. 20260–1137
November 10, 1998

ORIGINAL

BEFORE THE
POSTAL RATE COMMISSION
WASHINGTON, D.C. 20268–0001



MAILING ONLINE SERVICE

Docket No. MC98–1

NOTICE OF UNITED STATES POSTAL SERVICE
OF FILING OF LIBRARY REFERENCE USPS-LR–20

The United States Postal Service hereby gives notice that it is filing today the following library reference:

USPS-LR–20/MC98-1 Electronic Spreadsheet Provided by Witness Stirewalt in Response to OCA/USPS-T3-77.

Copies are also on file with the Postal Service library.

Respectfully submitted,

UNITED STATES POSTAL SERVICE

By its attorneys:

Daniel J. Foucheaux, Jr.
Chief Counsel, Ratemaking

David H. Rubin

David H. Rubin

**CERTIFICATE OF SERVICE**

I hereby certify that I have this day served the foregoing document upon all participants of record in this proceeding in accordance with section 12 of the Rules of Practice.

475 L'Enfant Plaza West, S.W.
Washington, D.C. 20260–1137
(202) 268–2986; Fax –5402
November 10, 1998

David H. Rubin